JAYDEN KOH

jkohhokj@tamu.edu

☎ 832-867-6597 📍 College Station, TX ⌨ github.com/jkohhokj 🌐 jkoh.dev in linkedin.com/in/jkohhokj

👤 **Citizenship:** U.S. Citizen

EDUCATION

Texas A&M University   **Expected Graduation: May 2027**

Bachelor of Science in Computer Engineering, Minor in Mathematics, Minor in Cybersecurity   *GPA: 3.78*

RELEVANT COURSEWORK

Data Structures & Algorithms, Computer Systems, Computer Architecture, Software Engineering, Electrical Signals & Systems, Communications & Cryptography, Embedded Systems Security, Hardware Security, Linear Algebra

SKILLS

Linux, Windows, C/C++, x86, ARMv8, RISC-V, GDB, Bash, Python, Shell, Git, GitHub, Docker, Kuberenetes, CMake/Makefiles, Information Systems, Machine Learning, Computer Microarchitecture, Generative AI, Cybersecurity

EXPERIENCE

TAMU Cohort in Hardware Security   **Aug 2025 – Present**

Academic Instructor   *College Station, Texas*

- Developed ECEN 491 course material on constrained-randomized **hardware verification** and **computer architecture validation**.
- **Led 3 teams** of researchers to find hardware vulnerabilities on open-source System-on-Chips in **Chisel** and **SystemVerilog**.

TAMU Cybersecurity Center   **Aug 2025 – Present**

Security Engineering Intern   *College Station, Texas*

- Scaled platform infrastructure using **Docker and automated deployments** for CTF competitions, **supporting 300+ teams**.
- Integrated **web3 infrastructure** with existing CTF framework supporting Solidity smart contracts for the Ethereum blockchain.

Secure and Trustworthy Hardware Lab   **May 2025 – Aug 2025**

Hardware Security Engineering Intern   *College Station, Texas*

- Published paper discovering 6+ **system-level vulnerabilities** with technical write-ups and exploits on RISC-V processors.
- Integrated hardware simulation software with hardware fuzzing framework for **open-source processors** on the Chipyard toolchain.
- Curated **hardware vulnerability database** alongside data collection framework for a **Retrieval Augmented Generation** LLM.
- Presented research on hardware security and various **fuzzing techniques** for open-source processors at 2 USRG **poster sessions**.

MIT Lincoln Lab   **May 2023 – Aug 2024**

Embedded Security Engineering Intern   *Boston, Massachusetts*

- **Led a team of 8 instructors**, mentoring students to complete **30+ labs on embedded security**, increasing completion rate to 150%.
- Directed 16 teams to develop a **secure remote firmware service** with an A/D CTF competition, increasing deployments by 200%.
- Designed **15 hands-on educational projects and labs** on advanced cryptographic and malware security vulnerabilities.

PROJECTS

CTF Organizer | *Cybersecurity, Blockchain, Docker, Kubernetes* | 🌐 Link

- Founded, organized, and hosted numerous annual online CTF tournaments, supporting over **1000 teams** across **30+ countries**.
- Maintained and managed **live production infrastructure** during competitions, ensuring system stability and resolving timely issues
- Authored multiple **reverse engineering and cryptography** challenges and **exploits** for various prestigious competitions.

ComSec Rankings | *React, Middleware Architecture, Cloud Service* | 🌐 Link

- Developed academic **cybersecurity data visualization platform** tracking research trends, guiding future projects and papers.
- Collected and parsed **20+ years of open-source publications** to rank universities and companies by research performance.

Ethernaut Writeups | *Solidity, Ethereum, Security Audit* | 🌐 Link

- Developed exploits for **25+ Ethereum smart contract** challenges using Solidity, improving the security of decentralized apps.
- Engineered and analyzed **exploit scenarios** including reentrancy, flash loan exploits, signature replay, proxy misconfigurations, liquidity manipulation, ABI edge cases, and compiler version mismatches, deepening understanding of **smart contract security**.

TAMUhack 1st Place | *React, NoSQL, Web Serial Communication* | 🌐 Link

- Won 1st place for "Best Medical Hack" by leveraging **hardware design** with software for a medical solution with real-world impact
- Developed **prescription distribution solution** integrating patient-side dispenser with pharmacist-side **automation service**.

TAMU Datathon 1st Place | *React, Blockchain, Zero-Knowledge Proofs* | 🌐 Link

- Won 1st place for "Best Use of Midnight" by architecting a **secure blockchain solution** with the most creative design.
- Engineered a decentralized application **leveraging zk-SNARKS** on the Midnight blockchain, maintaining **platform integrity while ensuring voter confidentiality** through zero-trust architecture.